UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,177	06/01/2001	Suresh Katukam	CISCP691	2925

54406 7590 07/07/2005	EXAMINER
AKA CHAN LLP / CISCO	DUONG, OANH L

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ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 07/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06/01/2001 and</u> .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-34</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>04 June 2001</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date <u>01/23/02; 08/24/04;</u> 10/25/04; & 06/17/05.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-34 are presented for examination.

Drawings Objection

2.   Figures 1a-1d should be designated by a legend such as --Prior Art-- because

only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Objections

3.   Claims 1, 3, 4, 16, 24 and 28 are objected to because of the following

informalities: the feature "it" should not be used in the claims.

     Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

4.   Claims 11-18 and 24-27 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

The claims 11, 16 and 24 are directed to a functional description material

consists of data structures and/or computer programs per se.

To over come this type of 101 rejection, examiner suggests applicants to amend

the claim to include the physical computer medium to store computer program product.

For example, the claim should be amended as "...the computer program product

embodied on a computer readable medium and comprising: " see MPEP 2106 section

V.

Claims 12-15, 17-18 and 25-27 are also rejected under 35 U.S.C 101 in virtue of

dependency of the base claims 11, 16 and/or 24. Further, the feature "carrier wave" in

claims 15 and 27 renders the claim as not statutory as the claims are not tangible.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

.A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the
United States before the invention thereof by the applicant for patent, or on an international application
by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this
title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5.   Claims 1-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Hillard

et al. (Hillard) (US 6,765,880 B1)

        The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the

invention "by another," or by an appropriate showing under 37 CFR 1.131.

        Regarding claims 1, 7, 11, 16, 19, 24 and 28, Hillard teaches an apparatus for

computing a primary path within a network (i.e., computation of the shortest protectable

path, col. 5 lines 23-38), the network including a plurality of nodes and a plurality of links

(Figs 2 and 5), the apparatus comprising:

        means for identifying a path segment, the means for identifying the path segment

being arranged to identify an unprotected path segment included in the primary circuit

path (i.e., identification of the unprotected path, col. 7 lines 36-41), the unprotected path

segment being defined to include a first unprotected link included in the plurality of links

(i.e., an unprotectable path contains one or more unprotectable links, col. 4 lines 43-47),

the unprotected path segment further being defined to enable data to be transferred

between a first node and a second node, the first node and second node being included in the plurality of nodes (col. 3 lines 18-37); and

means for validating, the means for validating being arranged to determine when the network includes a first alternate path segment that corresponds to the unprotected path segment, the first alternate path segment being arranged to enable data to be at least partially transferred between the first node and the second node (i.e., for each unprotected path segment in the shortest path, a search is made for an alternate edge disjoint path segment, col. 3 lines 9-57 and col. 7 lines 55-57), wherein when it is determined that the network includes the first alternate path segment, the unprotected link is added to the primary circuit path (i.e. if the link is deemed protectable then it is added to the tree 550, col. 5 line 51-col. 6 line 65),.

Regarding claims 2, 17 and 29, Hillard teaches means for identifying a link, the means for identifying the link being arranged to identify the first unprotected link to be included in the primary circuit path (col. 6 lines 45-51).

Regarding claims 3, 9, 13, 18 and 30, Hillard teaches when it is determined that the network does not include the first alternate path segment, the unprotected link is not included in the primary circuit path (the link is determined to not be protectable, the link is discarded from consideration and blocked, col. 5 line 51-col. 6 line 65), an the means for identifying the link further identifies a second unprotected link included in the plurality of links to be included in the primary circuit link (i.e., each link is checked for protectability, col. 6 lines 45-65).

Regarding claims 4, 20 and 31, Hillard teaches the means for identifying the link is further arranged to add the first unprotected link the primary circuit path when it is determined that the network includes the first alternate path segment (i.e., if the link is deemed protectable then it is added to the tree (550), col. 6 lines 45-48).

Regarding claims 5, 8 and 12, Hillard teaches the unprotected path segment includes at least a second unprotected link included in the plurality of links (col. 7 lines 39-54).

Regarding claims 6 and 32, Hillard teaches the means for validating is further arranged to determine when the first unprotected link is protectable (i.e., to determine whether or not any given link is protected, col. 7 lines 14-20)

Regarding claims 10, 14, Hillard teaches selecting a second unprotected link from the plurality of link (i.e., each link is checked for protectability, coll. 6 lines 56); identifying a second potential unprotected path segment, the second unprotected path segment including at least the second unprotected link, the second potential unprotected path segment further being arranged between the first node and the second node (i.e., identification of the unprotected path segments, col. 7 lines 36-54); and automatically determining when the second potential unprotected path segment has a corresponding second alternate path segment, the second alternate path segment being arranged between the first node and the second node (i.e., for each unprotected path segment in the shortest path, a search is made from an alternate edge disjoint path segment, col. 7 lines 55-57).

Regarding claim 15, Hillard teaches the computer readable medium is one

selected from the group consisting of a hard disk, a CD-ROM, a DVD, a computer disk,

a tape drive, a computer memory, and a data signal embodied in a carrier wave (col. 8

lines 12-16).

Regarding claim 21, Hillard teaches identifying a second potential unprotected

path segment, the second potential unprotected path segment including a second

unprotected link (col. 3 lines 32-37); determining when the second potential unprotected

path segment has the corresponding first alternate path segment, the first alternate path

segment being arranged between the first and the second node (col. 3 lines 43-46);

adding the second unprotected link to the unprotected path segment has the

corresponding first alternate path segment (col. 5 lines 65-67).

Regarding claims 22 and 25, Hillard teaches the second potential unprotected

path segment includes the unprotected segment of the circuit path (col. 6 lines 45-65).

Regarding claim 23, Hillard teaches wherein determining when the first potential

unprotected path segment has the corresponding first alternate path segment includes

substantially automatically determining when the first potential unprotected path

segment has the corresponding first alternate path segment (col. 7 lines 14-35).

Regarding claim 26, Hillard teaches computer code that causes a second

potential unprotected path segment to be identified, the second potential unprotected

path segment including a second unprotected link, computer code that causes a

determination to be made regarding when the second potential unprotected path

segment has the corresponding first alternate path segment, the first alternate path

segment being arranged between the first node and the second node, and computer

code that causes the second unprotected link to be added to the unprotected segment

of the circuit path when it is determined that the second potential unprotected path

segment has the corresponding first alternate path segment (col. 5 line 51-col. 7 line

54).

Regarding claim 27, the computer readable medium is one selected from the

group consisting of a hard disk, a CD-ROM, a DVD, a computer disk, a tape drive, a

computer memory, and a data signal embodied in a carrier wave (col. 8 line 12-16).

Regarding claim 33, Hillard teaches the first unprotected link is arranged

between a third node and a fourth node, and determining when the first unprotected link

is protectable includes determining when at least one other unprotected links included in

the plurality of links is suitable for transferring data between the third node and the

fourth node (col. 3 lines 31-37).

Regarding claim 34, Hillard teaches the unprotected path segment includes at

least a second unprotected link included in the plurality of links (col. 4 lines 43-49).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. See *In re Goodman,* 11
F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi,* 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum,* 686 F.2d 937, 214 USPQ 761 (CCPA
1982); *In re Vogel,* 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,*
418 F.2d 528, 163 USPQ 644 (CCPA 1969).
A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6.   Claims 1 and 24 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 20 of U.S. Patent No. 6,765,880 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other for the reasons set forth below.

Regarding claim 1, claims 9 and 11 (c) of the above patent recites substantially all limitations of claim 1 of the instant application. One ordinary skill in the art will readily to recognize that the feature "when it is determined that that network includes the first alternate path segment, the first unprotected link is added to the primary circuit path" of claim 1 of the instant application is an obvious variation of the feature "determining the shortest protectable route using protectable links, wherein the shortest protectable route does not contain unprotectable links" of claim 11 of the above patent.

Regarding claim 24, the claims 20 and 22 of the above patent recite substantially all limitations of claim 11 of the instant application. One ordinary skill in the art will readily to recognize that the feature "computer code that cause the first unprotected link to be added to an unprotected segment of the circuit path when it is determined that the first potential unprotected path segment has corresponding first alternate path segment" of claim 24 of the instant application is an obvious variation of the feature "code segment for determining the shortest protectable route using only links classified as being protectable" of claim 22 of the above patent.
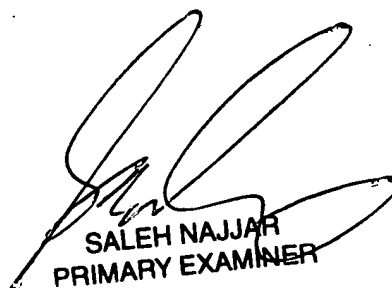
7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Oanh Duong whose telephone number is (571) 272-

3983. The examiner can normally be reached on Monday- Friday, 2:00PM - 10:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

O.D
July 1, 2005

SALEH NAJJAR
PRIMARY EXAMINER